

REMARKS

Favorable reconsideration of this application, as amended, is respectfully requested.

At the outset, Applicant would like to thank the examiner for the indication of allowable subject matter within Claims 3-5, 9, 17, 21 and 28. Applicant also notes the examiner denied Applicant's request for an interview after final. Consequently, Applicant formally requests an interview with the examiner and his supervisor before issuance of the next action.

The claims were amended, generally, for reasons not related to patentability, i.e., to remove parenthetical reference characters. Additionally, Claims 45 and 46 have been added, and support for these new claims may be found, for example, in Paragraph 0023 (Page 5) of the substitute specification. No new matter has been added, and Applicant submits that Claims 45 and 46 are independently allowable over the cited references (see remarks below).

Claims 1, 2, 6-8, 10-16 and 33 were finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Vent (US 2,388,352) in view of Phillips (US 6,569,529), Hoshino (US 5,347,111) and Hudson (US 2003/0161017), Claims 18-20, 22-26, 29-32 and 39-44 were finally rejected as being unpatentable over Hudson in view of Phillips and Hoshino and Claim 27 was finally rejected as being unpatentable over Hudson in view of Phillips, Hoshino and Vent.

Applicant respectfully traverses.

Claim 1 Is Allowable Over Vent

Vent discloses a "comparing device or novelty," preferably in the form of a "certificate," that is provided with a photographic reproduction of a stress pattern "as seen in a lens through polarized light" (Page 1, Col. 1:1-5, Col. 2:21). Vent's certificate 10 folds over onto itself, and includes apertures 14,15 in front and back faces 12,13, respectively. Apertures 14,15 are covered by polaroid skins 16,17, respectively, so that polaroid skins 16,17 are "back to back when the certificate 10 is in closed position and in alignment" (Page 1, Col. 2:47-49). Because the axes of polaroid skins 16,17 are arranged at right angles to one another, when certificate 10 is folded and lens 18 is positioned between polaroid skins 16,17 and held up to the light, the stress pattern in lens 18 becomes visible and "its shape can be compared with the shape of the stress pattern [11] pictured on the certificate" (Page 2, Col. 1:7-9). Differences between the stress pattern 11 and the appearance of the lens 18 through the polarizing skins

16,17 indicate whether the ophthalmic lens 18 has been "toughened." *See*, also, FIGS. 2, 3. Presumably, the polaroid skins are transparent.

Fundamentally, Applicant submits that Vent's disclosure is entirely inapplicable to the claimed invention. Claim 1 is directed to a security document that includes a multilayer security element connected with a substrate so that it is visually recognizable at least from one of the two substrate surfaces. Vent, on the other hand, discloses a "comparing device or novelty" that has two separate polaroid skins 16,17, each of which is a single layer of polarizing material that is fastened over a hole, or aperture. Applicant submits, as before, that Vent's comparing device or novelty is not a "security document," nor are his polaroid skins 16,17 "security elements."

In response, the Office Action alleges that "the Examiner considers the certificate to be a security document since many certificates do hold important information and the elements 16 and 17 are considered security elements since they are helping verify the right item is being given" (Page 11, 1st Paragraph). Applicants disagree. Vent simply fails to teach or suggest that his comparing device or novelty "holds important information." Further, with respect to the Examiner's bald assertion that Vent's polaroid skins 16,17 are "security elements" because they are "helpful," Applicant notes that none of the cited references, including Vent, support such an interpretation. Accordingly, Applicant suspects that the Office Action may be engaging in impermissible hindsight reconstruction in order to read the claimed "security document" and "security element" onto Vent's "comparing device or novelty" and "polaroid skins," respectively.

Vent's comparing device merely serves to identify whether an accompanying lens 18 is "toughened glass" – Vent's polaroid skins 16,17 simply provide no element of security to the comparing device itself. *See*, e.g., Page 1, Col. 1:6–13 ("The invention contemplates a method and apparatus for comparing the stress pattern in any one or more toughened glass pieces, such as toughened ophthalmic lenses with one or more reproductions of stress patterns, for the purpose of identifying the origin of the toughened glass under consideration and to ascertain the type of process used in toughening the lens") (emphasis added), Page 2, Col. 2:22–27 ("The invention further contemplates a comparing device or novelty comprising an apertured body portion, with at least two polaroid films associated with the body portion in registry or substantial registry with the apertured portion of the body portion, ..."), Claim 1 ("A fold-over flexible comparing device adapted for comparing two stress patterns ..."), Claim 2 ("A comparing device adapted for comparing two stress patterns, ..."), Claim 3 ("A fold-over flexible

comparing device adapted for comparing two strain patterns ...”), Claim 4 (“A novelty device ...”), Claim 5 (“A fold-over comparing device ...”), Claim 6 (“A comparing device for comparing patterns appearing in toughened glass blanks ...”), Claim 7 (“A comparing device adapted for comparing a strain pattern in a toughened glass bank ...”), Claim 8 (“A novelty device for detecting normally invisible strain patterns in a glass blank ...”), Claim 9 (“A novelty device for detecting normally invisible strain patterns in glass blank portions ...”), Claim 10 (“A novelty device for detecting normally invisible strain patterns in a glass blank ...”), etc.

Consequently, Vent fails to disclose all of the features alleged by the Office Action. Moreover, none of the remaining references cure Vent’s deficiencies. Additionally, because Vent is directed to a comparing device that merely identifies a toughened piece of ophthalmic glass, rather than a security document, Applicant submits that one skilled in the art would not consider Vent’s teachings in combination with any of the remaining references applied against Claim 1.

Claims 1, 18 and 31 Are Allowable Over Phillips, Hoshino and Hudson

Claims 1, 18 and 31 recite, *inter alia*, a multilayer, semitransparent security element that includes a multilayer interference element that produces a color shift effect and a layer with diffraction structures that at least partly overlaps the interference element, where the interference element has gaps in at least one layer and the diffraction structures directly adjoin the interference element.

The Office Action relies upon an arguably contrived combination of Phillips, Hoshino and Hudson to defeat the claimed features in a piecemeal manner. *See*, Office Action at Pages 2–9. Applicant respectfully submits that the Office Action fails to establish a *prima facie* case of obviousness because the cited references fail to teach or suggest all of the features recited by Claims 1, 18 and 31.¹ Applicant notes that the present invention provides specific optical effects by combining an overlapping diffraction structure layer and a multilayer interference element that produces a color shift thin film effect but has gaps, such that the “color shift effects are no longer recognizable in the areas of the gaps” (Paragraph 0055, substitute specification). And, due to the semitransparency of the security element, additional effects in reflected and transmitted light, as well as unexpected color combinations, are advantageously obtained.

¹ *See*, e.g., MPEP § 2143.03.

Phillips discloses interference flakes and foils that have color shifting properties. *See*, e.g., Abstract. The Office Action alleges that Phillips discloses a semitransparent security element in Col. 17:60–67. Applicant disagrees. To the contrary, Phillips discloses foil 100 that is “transparent to light incident upon the surface thereof,” in order to provide “visual verification or machine readability of information below foil 100 on carrier substrate 102” (Col. 17:66 to Col. 18:2; emphasis added). Further, Applicant submits, as before, that Phillips fails to teach or suggest that foil 100 may be semitransparent or opaque because anything other than transparent would clearly impede its stated purpose.

In response, the Office Action advances an arguably unique definition of semitransparent, i.e., “Phillips is only transparent when light is incident upon the surface. If the proper amount of light is not present then the element will be semi-transparent since it cannot always be transparent” (Page 11, 2nd Paragraph). Applicant submits that this definition is not supported by any of the cited references, and, further, simply strains credulity. Once again, Applicant suspects that the Office Action may be engaging in impermissible hindsight reconstruction in order to read the claimed semitransparent security element onto Phillips’ transparent foil. Consequently, Phillips fails to disclose all of the features alleged by the Office Action.

Hoshino discloses an identification seal 3 for a card 1 that has a hologram layer 11 consisting of a hologram forming layer 11a and an underlying light reflecting layer 11b. Identification seal 3 is secured to the major surface 1a of card 1 using adhesive layer 12. *See*, e.g., Col. 3:39–51; FIG. 4. Applicant submits that Hoshino fails to disclose a semitransparent security element. At most, Hoshino teaches that hologram forming layer 11a is made from a polycarbonate or other material “having pronounced double refractive property” (Col. 3:46–47). Furthermore, Hoshino is apparently directed to a machine-readable security element, and not, as compared to the present invention, an element in which visually recognizable diffractive effects and color shift effects are combined. Moreover, Hoshino’s hologram layer 11 is manufactured using a stretching process,² which is significantly different than the coating structures and substrates taught by Phillips. Consequently, Hoshino fails to cure the deficiencies of Phillips.

² *See*, e.g., Col. 3:57–61. (“Normally, the hologram forming layer 11a is formed by covering the light reflecting layer 11b with a sheet of polycarbonate resin which is extended or stretched during a fabrication process”).

Hudson discloses a diffractive device 7, such as a "metallised" hologram, that may be laser-ablated to form variable depth cuts 1,2,3,4,5,6. See, e.g., FIG. 1; Paragraph 0064. When Hudson's metallised hologram is cut, the metal is removed "to indelibly mark" the hologram. *Id.* Applicant submits that Hudson's metallised hologram is an opaque, reflection-type hologram, and, as such, is not a semitransparent security element, as recited by Claims 1, 18 and 31. Consequently, Hudson fails to cure the deficiencies of both Phillips and Hoshino. Furthermore, Hudson fails to disclose a multilayer interference element that both produces a color shift effect and has gaps, as recited by Claims 1, 18 and 31. Instead, Hudson's cuts are located in his diffractive device 7, i.e., the metallised hologram, and not in a multilayer interference element.

Consequently, Applicant submits that none of the cited references, taken either singly or in combination, teaches or suggests all of the features recited by Claims 1, 18 and 31. Accordingly, these claims are allowable. Claims 2, 6-8, 10-16, 39-42, depending from Claim 1, Claims 19, 20, 22-27, 29, 30, 43 and 44, depending from Claim 18, and Claims 32, 33, depending from Claim 31, are also allowable, at least for the reasons discussed above. Furthermore, Applicant submits that these dependent claims recite many features that are not disclosed by the cited references, and are, therefore, independently allowable.

New Claims 45 and 46 Are Independently Allowable

Applicant submits that new Claims 45 and 46 are independently allowable over the cited references. Claim 45 recites an interference element that has a transparency of under 90 percent, while Claim 46 recites an interference element that has a transparency of between 80 percent and 20 percent. None of the cited references teaches or suggests these features. For example, Phillips fails to disclose that his transparent foil 100 has a transparency of under 90 percent, or, even more specifically, a transparency of between 80 percent and 20 percent.

In view of the foregoing remarks presented herein, Applicant respectfully submits that this application is in condition for allowance and should now be passed to issue.

A Notice of Allowance is respectfully solicited.

If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

The Commissioner is hereby authorized to charge any fees and to credit any overpayments that may be required by this paper under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account No. 02-2135.

Respectfully submitted,



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